

ABSTRACT

5 Methods and compositions for reactions of hydrogen over a Re-containing
catalyst with compositions containing a 5-carbon sugar, sugar alcohol, or lactic acid are
described. It has been surprisingly discovered that reaction with hydrogen over a Re-
containing multimetallic catalyst resulted in superior conversion and selectivity to desired
products such as propylene glycol. A process for the synthesis of PG from lactate or
lactic acid is also described.

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